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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,684	02/10/2004	Dimitrie Negulescu	2560-0422	7384

7590 08/02/2005

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EXAMINER

EDGAR, RICHARD A

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/774,684	NEGULESCU, DIMITRIE	
	Examiner	Art Unit	
	Richard Edgar	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004 under 37 CFR § 1.53(f).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/21/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to because:

The sole figure is numbered. See 37 C.F.R. § 1.84(u)(1).

Arrows are used to point to details. See 37 C.F.R. § 1.84 (r).

Reference numeral "1" is missing a lead line.

"PG" is not mentioned in the description. See 37 CFR 1.84(p)(5).

The mechanism positioned between the front and rear propellers for adjusting the circumferential offset is not shown in the figure. See 37 C.F.R. § 1.83(a).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several

views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

On page 5, line 8, "Fig. 1" should be -- the figure --.

Appropriate correction is required.

Claim Objections

Claims 19-20 and 28-29 are objected to because of the following informalities:

The use of "blade" and "blades" in the claims should be changed to "propeller" and "propellers", respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3745

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7, 9, 14, 19-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,066,195 (Dobrzynski hereinafter) in view of United States Patent No. 4,998,995 (Blythe hereinafter).

Dobrzynski disclose a propeller comprising two axially offset propellers 8, 10 and 4, 6 which rotate in the same direction. The forward propeller is circumferentially offset (ϵ) relative to the aft propeller. The front and rear propellers have the same number of blades (2). The propeller blades of both propellers can be pitch-controlled (see col. 3, lines 16-17). Each propeller includes a plurality (2) of blades. The circumferential offset (ϵ) is variable (see col. 6, lines 49-64). The circumferential offset (ϵ) is adjusted by a mechanism positioned between the propellers (see col. 6, lines 49-56). The offset (ϵ) is adjusted to a suitable azimuthal blade arrangement (see col. 6, lines 61-64).

Dobrzynski do not disclose that the propeller is driven by a gas-turbine engine connected to a gearbox.

Blythe show that a dual propeller 12 is driven by a gas-turbine engine 6 connected by a gearbox 10, for the purpose of rotating the propeller blades to produce thrust.

Since Dobrzynski is a dual propeller and Blythe teaches that a dual propeller is driven by a gas-turbine engine and a gearbox, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to drive the propeller of Dobrzynski by a gas-turbine engine and gearbox, as taught by Blythe, for the purpose of rotating the propeller blades to produce thrust.

Claims 5, 8, 10-13, 15-18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,066,195 (Dobrzynski hereinafter) in view of United States Patent No. 4,998,995 (Blythe hereinafter) as applied to claims 1-4, 6, 7, 9, 14, 19-25 and 27-29 above, and further in view of United States Patent No. 2,330,622 (Ramshorn hereinafter).

Dobrzynski in view of Blythe show a dual propeller driven by a gas-turbine engine and a gearbox. The references do not teach alone or in combination, an air scoop positioned between the propellers.

Ramshorn discloses a propeller having blades 3 arranged on a cowling part 4, wherein aft of the blades 3 and cowling part 4 is a cowling part 2 which overlaps cowling part 4 to form a scoop 12 for the purpose of thinning the boundary layer experienced at the cowling part downstream of the blades 3 (see page 1, lines 8-15).

Since the Dobrzynski in view of Blythe propeller is subject to boundary layer thickening along the cowling, and Ramshorn teach to thin the boundary layer downstream of the propeller blades, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the Dobrzynski in view of Blythe propeller so that the cowling or hub of the downstream propeller overlaps the cowling or hub of the upstream propeller, as taught by Ramshorn, for the purpose of thinning the boundary layer experienced at the cowling part downstream of the propeller.

Cited Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

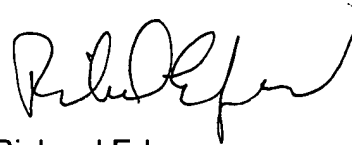
United States Patent No. 4,676,459 is cited for showing upstream and downstream propellers rotating in the same direction, wherein the propellers are rotated relative to one another.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Edgar whose telephone number is (571) 272-4816. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7 am- 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Edgar
Examiner
Art Unit 3745

RE